

朝比奈泰彦*: 地衣類雜記 (§180—181)

Yasuhiko ASAHINA*: Lichenologisch Notizen (§180—181)

‡180. ***Sticta Wrightii*** Tuckerman, Amer. Journ. Arts & Sci., Ser. 2, 28 (No. 83): 366. 1859.

Ricasolia Wrightii Nyl., Synop., 366. 1860.—Krempelhuber, Flora, 1862: 441.

Sticta Miyoshiana Müll. Arg., Flora, 1891: 111.

Sticta Yasudae Vain., Bot. Mag. Tokyo, 35: 64. 1921.

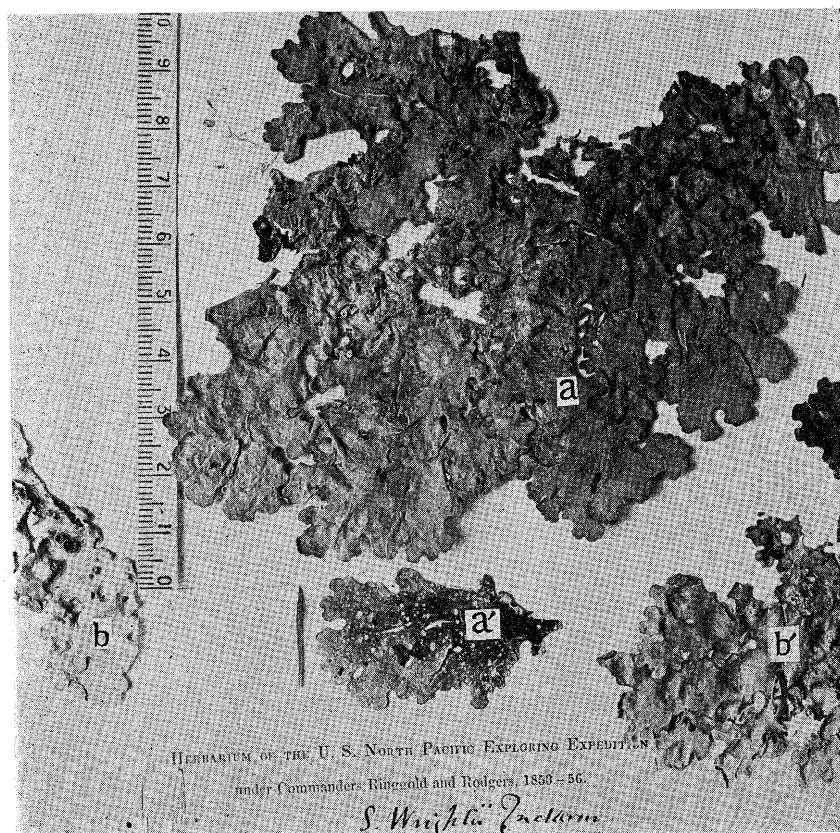


Fig. 1. Type specimen of *Sticta Wrightii* Tuck.
a & a'. Lectotype. b & b'. *Sticta insinuans* Nyl.

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Thallus K-; medulla K+mox fulvescens, C-, PD-.

Long time ago Zahlbruckner¹⁾ identified two specimens collected in Formosa with *Sticta Wrightii* Tuck. But these specimens do not coincide with the Tuckerman's description, that *St. Wrightii* possesses "the general aspect of *Sticta glomerulifera*". I am of opinion that these Formosan specimens must be referred to *Sticta Nylanderiana* Zahlbr. (= *St. platyphylla* Nyl.). According to Tuckerman, *Sticta Wrightii* was collected by C. Wright growing "on beech trunk, mountain side, Hakodadi²⁾, Japan" during the voyage of the U. S. North Pacific Exploring Expedition, 1853-56. Afterwards Nylander changed its generic name, and called it *Ricasolia Wrightii* Nyl. His description of this species must have been made on the basis of the specimen sent by Tuckerman. Moreover *Sticta Wrightii* is an interesting species, as it occurs also in a few localities of Europe. When Krempelhuber identified the specimens collected by Rauchenberger in the forest of Berchtesgaden (Bavaria) with *Ricasolia Wrightii* Nyl., he expressed his surprise saying "Wie lässt sich aber das sporadische Auftreten dieser Flechtenart an zwei so weit entfernten Orten, wie Berchtesgaden und Japan sind, erklären?"

To get more accurate knowledge about *Sticta Wrightii* Tuck., I turned to Dr. M. Lamb³⁾ for help, who was kind enough to send me its type specimen on loan. At first sight of the type specimen, I was greatly surprised to find that it was composed of two different species. The larger part (Fig. 1, a and a') is nothing but *Sticta Miyoshiana* Müll. Arg. and smaller fragments b and b' are of *Sticta insinuans* Nyl. The specimens a and a' are sterile, while the fragment b bears a few apothecia. Müller Arg. remarked in his description of *Sticta Miyoshiana* "Prope *Sticta Wrightii* Tuck. locanda est, a qua indumento partium et sporis elongatis multo tenuioribus differt". But he did not pursue the problem thoroughly.

To decide the lectotype between these two species, it seems, at first, to be convenient to select b and b', as they are fertile. But for the following reason I prefer the sterile part a and a' (*Sticta Miyoshiana*) to b and b' (*Sticta insinuans*).

In connection with the type specimen of *Sticta Wrightii*, I requested Prof. H. des Abbayes to let me examine Nylander's specimens, which come into contact with the subject. Also I appreciate the favor done by Dr. J. Poelt (Munich) in

- 1) Fedde, Repert., **33**: 32. 1933. Specimens no. 376, leg. Ogata, no. 34, leg. Asahina.
- 2) A local corruption of "Hakodaté".
- 3) The author is also grateful for his cooperation in sending him the manuscript of the original description of Tuckerman.

sending me on loan related specimens of Krempelhuber, preserved in the Staatsherbarium Munich. Nylander's specimens consisted of four packages, two of them were of Bavarian and the rest of Japanese origin—the latter evidently sent by Tuckerman to Nylander and identical with the part a and a', but not with the part b and b' of the type specimen.

In Munich specimens contained two Exsiccata-samples: Herbarium Lichenum Fenniae. Fac. I (1875). 35. *Ricasolia Wrightii* (Tuck.), In Karelia Onegensi etc. legerunt Th. Simming et J. P. Norrlin, 1863–1870. —H. Lojka: Lichenotheca Universalis. Fasc. II (1885) *Ricasolia Wrightii* (Tuck.) Nyl. in cortice *Aceris* prope Berchtesgaden in Bavaria. Leg. Rauchenberger) — transferred from

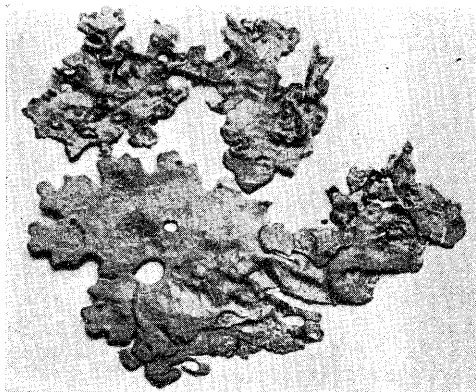


Fig. 2. Fertile fragments of *Sticta Wrightii* Tuck. preserved in the Nylander's herbarium, Botanical Museum Helsinki, undoubtedly sent to Nylander by Tuckerman.

Arnold's herbarium. Three other Bavarian specimens were all collected by Rauchenberger in Berchtesgaden. The most important event is the presence of a Japanese fertile specimen among Munich collection, transferred from Arnold's herbarium. It is labelled "*Sticta Wrightii* T. ad fagum in montibus Hakodadi, Japonia. Leg. C. Wright". Another fertile fragments of *Sticta Wrightii* of the same origin are preserved in the Nylander's herbarium, Botanical Museum Helsinki, (cf. Fig. 2).⁴⁾ The external aspects of these specimens coincide very well with that of *St. Miyoshiana* Müll. Arg. and the presence of apothecia is an infallible evidence, that Tuckerman himself was acquainted with fertile thalli, though the type specimen is deprived of fertile part.

In the taxonomy of the genera *Sticta* and *Lobaria* their thalline reactions are very often taken into consideration. In that case a careful management is required. For example the K reaction carried out directly on the thallus is often misleading,

4) I am greatly indebted to Dr. Ahti and Dr. Roivoinen, who let me examine the specimens in question on loan.

especially when the specimen in question is an old one. But by a technique one finds his way out of this difficulty. A wet spot caused by dropping KOH-solution on the thallus of a *Sticta* or *Lobaria* species is absorbed by a narrow strip of white filter paper and observed its coloration. If a durable yellow color appears instantly, then the reaction is called K+yellow. If the alkali wet paper strip remains for a few minutes colorless, the reaction is called K-. But in that case the alkali wet paper becomes gradually more or less reddish brown. This is due to a substance very sensitive towards atmospheric oxygen, giving within a short time reddish brown coloration. These substances contained in *Sticta* and *Lobaria* seem to belong to tannoids, neither atranorin, nor depsides nor depsidones. Also several species of *Sticta* and *Lobaria* reveal C+reaction in the medulla (presence of gyrophoric acid!). If the content of gyrophoric acid is very small and not uniformly distributed, the C reaction becomes negative. But even in that case K C reaction may become positive, because at first alkali solution dissolves gyrophoric acid from remote places and its concentration becomes sufficient enough to react with C. Here a positive K C reaction does not mean the presence of a depsidone of lobaric acid type. Of course, there are many cases, in which K C reaction is wholly negative, as in the case of the lectotype of *Sticta Wrightii* Tuck. (total absence of gyrophoric acid).

Nylander⁵⁾ gave the thalline reaction of *Ricasolia Wrightii* as K+. How he judged the reaction, was not described in detail. Perhaps he recognized the rather indefinite color spot on the thallus. By the method described above the thalline reaction of the type specimen *Sticta Wrightii* is K- or faintly reddish brown but not yellow. Some fragments of the Bavarian specimens gave a weak thalline reaction K+yellow. Also I have tested 40 Japanese specimens of *Sticta Miyoshiana* Müll. Arg. and found 6 specimens, which revealed to be K+(15%). Here I lay no important taxonomical weight on this reaction K+.

I take this occasion to mention that the part b, b' of the type specimen of *Sticta Wrightii* Tuck. gives the reactions: thallus K- (afterwards becoming faintly brownish); medulla C+faintly rose, KC+distinctly rose.

§ 181. **Parmelia** (Xanthoparmelia) **seto-maritima** Asahina, nov. sp.

Parmelia Mougeotii (non Schaer.) Nyl. in Lich. Jap., 28.

Thallus parvus, orbicularis vel irregulariter expansus, plagas ad 1cm latas formans, demum thallus vicinis confluentibus compositus, tum plagas usque ad 3cm

5) Flora, 1869: 314.

latas formans, flavo- vel cinereo-viridescens, in medio areolatus, areolis 0.4–0.6 mm latis, isidiatus, isidiis globosis minutis, ± 0.1 mm latis, apice nigricantibus, esorediatus, in peripheria radiato-laciniatus; laciniae 1.0–1.5 mm longae, 0.6–0.9 mm latae, nitidulae, ambitu obscuratae, contiguae vel \pm imbricatae, arcte adpressae; intus albus; subtus fuscus, hyphis concoloribus, stuppeis substrato affixus, erhizinosus. Apothecia et pycnidia non visa. Ad saxa quartzona.

Thallus ca 150μ crassus; cortex superior ca 9μ crassus, amorphus; stratum gonidiale $25\text{--}30\mu$ crassum, gonidia globosa, cellul-



Fig. 3. *Parmelia seto maritima* Asahina. $\times 10$

lis 6–7. 5μ latis; cortex inferior $10\text{--}15\mu$ crassus, hyphis ca 3μ latis fuscis laxo contextis.

Reaction.: th. K fere—; med. K+leviter flavens, C—, PD+miniato-rubens.

Mat. chim. propr.: acidum usnicum, acidum sticticum et acidum norsticticum.

Typus: Insula Hiroshima, vis-a-vis Marugame, Shikoku. No. 61511, leg. M. Togashi 1961, in herbario meo.

Nylander registered in his *Lichenes Japoniae* (1890) *Parmelia Mougeotii* Schaer., based on a specimen collected by Almqvist, a lichenologist on board of "Vega", in an islet Hiroshima⁶⁾ in the Inland Sea (Seto-Naikai), lying ca 10 kilom. northwest off Marugame, a town on the northern coast of Shikoku. *Parmelia Mougeotii* is one of the doubtful species in the lichen flora of Japan, as it has since then never been found in Japan. Occasionally on the study of *Parmeliae*⁷⁾ registered in Nylander's *Lichenes Japoniae*, I found a specimen no. 34664: *Parmelia Mougeotii* Schaer. with a minor colony of *Lecidea atroalbella* Nyl. The substratum

6) Not "Hiroshima", which suffered the atom-bomb destruction in the World War II.

7) I am greatly indebted to Mr. Ahti, who was kind enough to arrange and send me these valuable specimens of Vega collection, preserved in the Botanical Museum, University of Helsinki on loan.

is a piece of granite, 5×2 cm large, labelled with a note—Japonia, Hiroshima. E. Almquist 1879. This Vega specimen lacks tuberculose soralia, which are so characteristic in the European specimens of *Parmelia Mougeotii*. Recently on my request Mr. Togashi has searched for the specimens in question in the type locality. In spite of the lapse of more than 80 years, in the course of which the natural scenery of the islet must have undergone a considerable change, Mr. Togashi was lucky enough to collect a lot of specimens, referable to the present problem. Wholly developed Togashi specimen, which I call *Parmelia seto-maritima* Asahina possesses no soredium, but plenty of isidia and its laciniae are at the circumference contiguous or even imbricate and not \pm discrete as in the case of *Parmelia Mougeotii*.⁸⁾ The Vega specimen no. 34664 is a young plant of this new species and almost free from isidia, but its transition to the wholly developed *P. seto-maritima* may be well demonstrated by the Togashi collection. Mr. Togashi collected also this new species in the site of the old castle of Marugame, by which its area is extended to the main land of Shikoku.⁹⁾

□ Hatton, R. G.: **handbook of plant and floral ornament from early herbals**

pp. 539 figs. 1014+57 (1960) Dover Publications, New York \$2.98 これは英国で1909 にでた The Craftman's plant-book の覆刻判である。主に植物をテーマとするデザインの資料として出版されたのであるが、16 世紀に出た主な西洋の本草書から抜萃した植物の画が千余り並べてあるので、其等をみくらべてみると中々楽しい。第1章の本草書の解題や第6章の分類篇（これは Lindley の System であるが、このごろの Engler 以外の分類系の根源の一つであるから温古知新の意味で面白い。上記の図はこの分類順に並べてある）など植物専攻家にも参考になるであろう。上製紙で装釘はしっかりしていてしかも開き易いと自慢しているだけに簡単な装釘ながらよくできている。

(前 川 文 夫)

- 8) I take this occasion to put the chemical ingredients of *Parmelia Mougeotii* Schaer. on record. Material leg. Dr. Vayhinger in Purbenhalde, Schramberg, Wurttemberg in 1892 contains usnic, stictic and norstictic acids—the same ingredients as in *Parmelia seto-maritima* Asahina.
- 9) After the completion of the above manuscript, I found, quite unexpectedly, a small specimen of *Parmelia seto-maritima* Asahina (substratum sandstone) among an undetermined collection of Mr. Fujikawa, who collected it (1931) at Kubotsu, a village near Cape Ashizuri, Prov. Tosa. This fact indicates the occurrence of this species may be anticipated also along the Pacific coast of Shikoku.